

usually flat leaves, by the short faintly nerved stipules, by the smaller very herbaceous calyx with oblong (not oval or obovate) narrowly crimson- or pink-margined lobes, and by its olivaceous (not castaneous or blackish) achene. In fact, *P. Fowleri* in its characters and aspect as well as its habitat is quite unlike the three plants with which it has sometimes been confused and has its affinities much more with the boreal *P. islandicum* Meisner, the range of which it overlaps on the Straits of Belle Isle.

GRAY HERBARIUM.

A TERATOLOGICAL SPECIMEN OF CYPRIPEDIUM ACAULE.

JOHN B. MAY, M. D.

ABNORMALITIES among flower forms are often of great interest to the student of botanical morphology, in that they sometimes furnish a clue or a connecting link to an earlier and now extinct form of the plant. I therefore make these notes of a specimen of *Cypripedium acaule*, found May 26, 1912, growing in the wild garden of Mr. Francis Southwick, at Waban, Mass. The two upper or lateral petals were enlarged, with irregular, wavy edges, part of each petal showing the parallel veining of the typical form, and part presenting the pink coloring, netted veining, and in-curved edges of the third petal or labellum. The relationship between the three petals was shown very plainly, while in the normal blossom the layman usually considers the lateral petals as sepals. The sepals and column were apparently normal.

After photographing and sketching the flower, I rubbed some of its own pollen on the stigma in an attempt at fertilization, with the rather remote possibility of seedlings appearing which would perpetuate the oddity.

Henry Baldwin, in his "Orchids of New England," describes a specimen of *Cypripedium spectabile* found in 1881 near Lake Michi-

gan. "The monstrosity was an almost regular flower growing on the same stem with one of the ordinary form. . . . It had no lip but three regularly formed pure white petals all of the same size and shape. . . . Here, in a genus affording some of the most strikingly irregular flowers in Nature was a flower all but regular." My specimen was not such an interesting or so extreme a case of reversion of form, but it fits in well with the theories of the development of the orchid.

As a sidelight on one of Nature's many methods of preventing the perpetuation of abnormalities, let me describe a specimen of *Arethusa bulbosa* found in Gloucester in late summer, in 1906. Two faded blossoms were growing from a single root, the only two-flowered specimen I ever found. The scapes were parallel and the same length, and the two flowers faced each other in such a way that the parts were interlaced like the fingers of folded hands and the entrance of insects was effectually prevented. The flowers in fading had stuck together firmly, and the shrivelled ovaries showed plainly that fertilization had not taken place.

WABAN, MASSACHUSETTS.

SOME NOTEWORTHY VARIETIES OF BIDENS.

M. L. FERNALD.

IN 1908, the writer recorded¹ the occurrence of the common European *Bidens tripartita* L. as an apparently native plant of swamps at Percé, Gaspé County, Quebec, and at that time called attention to the characters which differentiate it from the American species, *B. frondosa* and *B. connata*, to which it is related. It was, therefore, gratifying, while exploring in August last with Messrs. Bayard Long and Harold St. John on the Magdalen Islands in the Gulf of St. Lawrence, to find, as we had expected to do, *B. tripartita* abundant there, growing either in shallow water at the margins of brackish ponds or in boggy spots near the sea-strand, and later in August to

¹ Fernald, RHODORA, X. 200 (1908).